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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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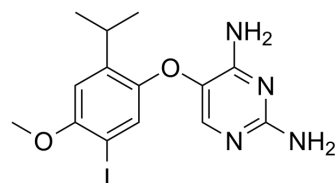
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AF-353

Cat. No.:	HY-14483
CAS No.:	865305-30-2
Molecular Formula:	C ₁₄ H ₁₇ IN ₄ O ₂
Molecular Weight:	400.21
Target:	P2X Receptor
Pathway:	Membrane Transporter/Ion Channel
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (249.87 mM; Need ultrasonic)				
	Preparing Stock Solutions	Solvent Concentration Mass	1 mg	5 mg	10 mg
		1 mM	2.4987 mL	12.4934 mL	24.9869 mL
		5 mM	0.4997 mL	2.4987 mL	4.9974 mL
		10 mM	0.2499 mL	1.2493 mL	2.4987 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (6.25 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.25 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil				
	Solubility: ≥ 2.5 mg/mL (6.25 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	AF-353 (Ro-4) is a potent, selective and orally bioavailable P2X3/P2X2/3 receptor antagonist, with a pIC ₅₀ of 8.0 for both human and rat P2X3, and with a pIC ₅₀ of 7.3 for human P2X2/3 ^{[1][2]} .
IC ₅₀ & Target	pIC ₅₀ : 8.0 (human P2X3), 8.0 (rat P2X3), 7.3 (human P2X2/3) ^[1]
In Vitro	AF-353 (Ro-4) is a highly potent inhibitor of α,β-meATP-evoked intracellular calcium flux in cell lines expressing recombinant rat and human P2X3 and human P2X2/3 channels ^[1] .

AF-353 (Ro-4) also blocks human P2X2/3 channel function with marginally reduced potency with a p_{50} of 7.3^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

AF-353 (Ro-4) does not compromise oxygen levels or cardiac function^[2].
AF-353 (Ro-4) (10 mg/kg, 20 mg/kg; i.v.; for 4-6 hours) inhibits the purinergic response in both normal and spinal cord-injured (SCI) rats^[2].
AF-353 (Ro-4) (10 mg/kg, 20 mg/kg; i.v.; for 4-6 hours) also reduces the inter-contraction interval in normal but not in SCI rats; however, the frequency of non-voiding (NVC) in SCI rats is significantly reduced^[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Female Sprague-Dawley rats (250–300 g) bearing SCI ^[2]
Dosage:	10 mg/kg, 20 mg/kg
Administration:	Intravenous injection; interval of 90 minutes, for 4 hours to 6 hours
Result:	Significantly reduced purinergic response in both normal and SCI rats.

REFERENCES

[1]. Gevers JR, et al. AF-353, a novel, potent and orally bioavailable P2X3/P2X2/3 receptor antagonist. Br J Pharmacol. 2010 Jul;160(6):1387-1398.

[2]. Munoz A, et al. Modulation of bladder afferent signals in normal and spinal cord-injured rats by purinergic P2X3 and P2X2/3 receptors. BJU Int. 2012 Oct;110(8 Pt B):E409-414.

Caution: Product has not been fully validated for medical applications. For research use only.

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